

# TEACHER RESOURCE PACKET



Includes Free Environmental Listing and Sample Lesson Plans

## INTRODUCTION

A decade ago, California generated more than 40 million tons of municipal waste per year and was reaching capacity at many local landfills. In response, the California Legislature passed Assembly Bill 939 mandating a 50% reduction in solid waste going to landfills for all counties. Toward that effort, the County of Los Angeles Department of Public Works ("the County") engaged in an unprecedented public outreach effort to educate county residents on the issue.

Given children's influence on family lifestyle habits and the need to include them in reduction efforts, the County developed and implemented a comprehensive, multi-faceted outreach effort aimed at children in kindergarten through sixth grade (K-6) to educate them and their families about the importance of preventing storm water pollution and reducing, reusing and recycling (the Three R's). Called the "Environmental Defenders," this award-winning program has reached millions of children and their families through free school assemblies and teaching materials, community events, promotions, as well as local partnerships that reinforce the lessons of preventing storm water pollution and the Three R's.

As a leading organization in the area of environmental education, the County has conducted extensive research on environmental education materials available nationally and has compiled this Environmental Defenders Teacher Resource Packet to support environmental education in K-6 classrooms. This packet includes:

- A resource listing of top organizations that provide environmental curricula, teaching materials, and training opportunities – often for little or no cost – for educators.
- Easy-to-use sample lessons and activities for grades K-6 that have been correlated to the Content Standards for California Public Schools K-12. These select lesson plans are ready-to-use and cover basic environmental concepts such as natural resources, recycling, water pollution prevention and household hazardous waste.

Because education is a key component in the preservation of the environment, the County applauds your efforts to encourage environmental learning in the classroom. The County hopes this Environmental Defenders Teacher Resource Packet facilitates your teaching children that they can play an important role in the health of the environment now and for generations to come.

#### WANT TO DEFEND THE ENVIRONMENT AT YOUR SCHOOL?

The County is pleased to offer assistance to help schools start environmental activities that can be adapted to fit your school's needs, whether it's help finding recycling bins or starting a larger, campus-wide environmental program. The County can also provide advice and counsel to schools regarding the planning, design and implementation of recycling, composting, waste reduction and storm water pollution prevention programs. If you have any questions, need more information or are interested in establishing an environmental program on your campus, please call the Environmental Defenders' hotline at (310) 551-5375.

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Upon 72 hours notice, the Department can provide program information and publications in alternate formats or make other accommodations for people with disabilities. In addition, program documents are available at our main office in Alhambra (900 S. Fremont Ave.), which is accessible to individuals with disabilities. To request accommodations ONLY, or for more ADA information, please contact our departmental ADA Coordinator at (626) 458-4081 or TDD (626) 282-7829, from 7 a.m. to 5:30 p.m., Monday through Thursday.

# KESOUKCE LISTING

Many environmental organizations and governmental entities have spent years developing and refining environmental curricula for elementary school students. Following are organizations with easily accessible information (via Web site or telephone) covering a range of environmental curriculum materials and training opportunities.

ORGANIZATION/CONTACT	CONTENT	DESCRIPTION	COST
California Integrated Waste Management Board (CIWMB) www.ciwmb.ca.gov or 916-341-6765	Solid waste management	Curriculum and teacher training	Free, with training
Heal the Bay www.healthebay.org or 1-800 HEAL BAY	Water pollution prevention	Curriculum and teacher training	Free, with training
Project Learning Tree www.plt.org or 916-653-7958	Water, wildlife, biodiversity and land use	Curriculum and teacher training	Free, with training
TreePeople www.treepeople.org or 818-753-4600	Ecosystems and cycles of nature	Curriculum and eco-tour	Free, with eco-tour
Water Education Foundation www.watereducation.org or 916-444-6240	Water pollution prevention	Curriculum and teacher training	Free
CA Regional Environmental Education Community Network (CREEC) www.creec.org or 916-322-9503	General environmental education	Online news and teacher resources	Free
Environmental Protection Agency (EPA) www.epa.gov/teachers/curriculum_resources.htm or 415-947-8701	Conservation and reducing, reusing and recycling solid waste	Videos, lesson plans, coloring, activities	Minimal Cost
Environmental Education on the Internet www.eelink.net	General environmental education	Activities, children's newsletter, environmental tips and trivia	Free
Think Earth www.thinkearth.org or 805-523-1040	General environmental education, natural resources, recycling, global warming	Grade-specific posters, videos and lessons	Minimal Cost
Jiminy Cricket's Environmentality Challenge www.jceckids.com or 1-800-290-0299	General environmental education	Classroom projects and student incentives	Free

## SAMPLE LESSONS AND ACTIVITIES

For your convenience, a select sample of five ready-to-use environmental lesson plans have been enclosed to introduce students to the story of the environment. Beginning with natural resources and their preservation, these lessons provide basic information and fun activities that help lay a foundation for understanding key environmental concepts. Additional and more advanced lesson plans can be obtained from the resource organizations listed above.

- **LESSON PLAN #1** "People Use Natural Resources" (CIWMB "Closing the Loop" curriculum)

  This lesson teaches students grades K-3 about the importance of identifying and conserving natural resources in order to reduce the need for raw materials.
- **LESSON PLAN #2** "Model Community Relay Lesson" (CIWMB "Closing the Loop" curriculum)

  This lesson gives students grades 4-6 a better understanding of how reusing and recycling saves resources and reduces waste to landfills.
- **LESSON PLAN #3** "Making Recycled Paper" (Project Learning Tree "Environmental Education Activity Guide") This lesson is an entertaining, hands-on activity for students grades K-6 demonstrating the process of recycling paper.
- **LESSON PLAN #4** "Fatal Food Relay" (Heal the Bay "Key to the Sea" curriculum)

  This lesson provides students grades 4-6 with an activity illustrating the negative impact of pollution on our waters and marine life.
- **LESSON PLAN #5** "Keeping Clean and Green" (County of L.A. Environmental Defenders/EPA)

  This lesson teaches students grades K-6 to recognize substances used in the home that may be harmful to humans and the environment.

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### STANDARDS

Correlations to California's Content Standards, Grades K-12

#### **ENGLISH-LANGUAGE ARTS**

#### **GRADE K**

**Listening and Speaking:** Students listen to and respond to oral communication. 1.2

#### GRADE 1 - 4

**Listening and Speaking:** Students listen critically and respond appropriately to oral communication. (Grade 1: 1.1, 1.2; Grade 2: 1.1, 1.2; Grade 3: 1.1, 1.2, 1.3; Grade 4: 1.1, 1.2, 1.6, 1.7)

#### **GRADE 4**

**Writing:** Students write clear and coherent sentences and paragraphs that develop a central idea. Their writing shows they consider the audience and purpose. 1.1, 1.3

#### **GRADE 5**

**Reading:** Students use their knowledge of word origins and word relationships to determine the meaning of specialized gradelevel appropriate vocabulary. 1.1

**Writing:** Students write clear and coherent sentences and paragraphs that develop a central idea and exhibit students' awareness of the audience and purpose. 1.1, 1.3

**Listening and Speaking:** Students deliver focused, coherent presentations that convey ideas clearly and relate to the background and interests of the audience. 1.1, 1.3, 1.4, 1.7, 1.8

#### **GRADE 6**

**Reading:** Students use their knowledge of word origins and word relationships to determine the meaning of specialized gradelevel appropriate vocabulary 1.1

**Writing:** Students write clear, coherent, and focused essays that exhibit students' awareness of the audience and purpose. Essays contain formal introductions, supporting evidence and conclusions. 1.1, 1.3

**Listening and Speaking:** Students deliver focused, coherent presentations that convey ideas clearly and relate to the background and interests of the audience. They evaluate the content of oral communication. 1.1, 1.2, 1.4, 1.6, 1.9, 2.4

#### SCIENCE

#### GRADE K

**Physical Science:** Properties of materials can be observed, measured and predicted. 1a

#### **GRADE K, 1, 2, 6**

#### **Investigation and Experimentation:**

Scientific progress is made by asking meaningful questions and conducting careful investigations. (Grade K: 4b, 4e; Grade 1: 4a; Grade 2: 4c; Grade 6: 7e)

#### GRADE 3, 5

**Life Sciences:** Adaptations in physical structure or behavior may improve an organism's chance for survival. (Grade 3: 3c; Grade 5: 6g)

(Adapted from: Education Toolbox – Tools For Helping Teachers Integrate P2 Concepts in the Classroom, United States Environmental Protection Agency; Pollution Prevention Lessons in Solid Waste Management, Kansas State University)

